

Biological Threats

Clinical Features	Diagnosis	Medical Management
Botulinum Toxins		
Symptoms appear several hours to one to two days after exposure.	An epidemic of cases of bulbar and neuromuscular disease.	Respiratory failure is the principal cause of death. Tracheostomy, endotracheal intubation, and ventilatory assistance may be required.
Initial Blurred vision, drooping eyelids, difficulty understanding language, difficulty in speaking, muscle weakness.	Other causes could be considered; however, the extent and epidemiology of the outbreak will help diagnose and define whether or not there was an attack.	Antitoxins are available, but they are horse serums and may produce reactions in those allergic to horse serum.
Progression—Day 3 Mucous in throat, neuromuscular symptoms, respiratory distress, difficulty in swallowing, feels like a cold without fever.		
Progression—Day 4 Indistinct speech, pupils moderately dilated, retarded eye motions, "mental numbness."		
Smallpox		
Incubation average 12 days. Symptoms begin acutely.	It is necessary to distinguish smallpox from chicken pox. Examination of vesicular scrapings under a microscope is the usual method for diagnosis.	Strict quarantine for 17 days of all persons in contact with index cases.
Phase I Symptoms: Malaise, fever, chills, vomiting, headache, backache. Light-skinned patients may exhibit rash during this phase.		No specific therapy.
Phase II Symptoms: Facial rash and eruptions on mucous membrane leading to infectious secretions. Eruptions on lower extremities spreading to the trunk over the following eight to 14 days. (Later, these pustules form scabs.)		Supportive care to prevent secondary infections.
Venezuelan Equine Encephalitis (VEE)		
Incubation two to six days (can be as short as 24 hours)	Epidemic febrile illness.	Standard precautions for healthcare workers.
Symptoms: Chills, high fever, headache, malaise, sensitivity to light, sore throat, muscle pain, vomiting.	White blood count shows striking leukopenia and lymphopenia. Virus may be isolated in serum. Sick or dying horses in the vicinity would be an indicator.	Analgesics for headaches.
Cutaneous Anthrax		
Incubation one to five days. Small bump progressing to blister which ruptures, leaving an ulcer containing dead tissue.	Development of a painless itchy lesion, blister, or ulcer which develops into a black scab. Fever.	Penicillin (oral). Additional treatment required if there is evidence of spreading infection.
Inhalation Anthrax		
Nonspecific symptoms ("flu-like"). Possible non-productive cough and mild chest discomfort. Symptoms last two to three days, possibly followed by a short period of improvement followed by sudden onset of respiratory distress, chest pain, difficulty breathing, and purple coloration of mucous membrane. Shock and death follows within 24 to 36 hours.	Diagnosis is difficult. Early symptoms are entirely nonspecific. Development of respiratory distress in association with X-ray evidence of widened mediastinum and hemorrhagic pleural effusion.	Large doses of intravenous penicillin and ciprofloxacin.